October so far

Description

This October looks set to be one of the warmest on record in the UK, according to provisional Met Office climate figures.

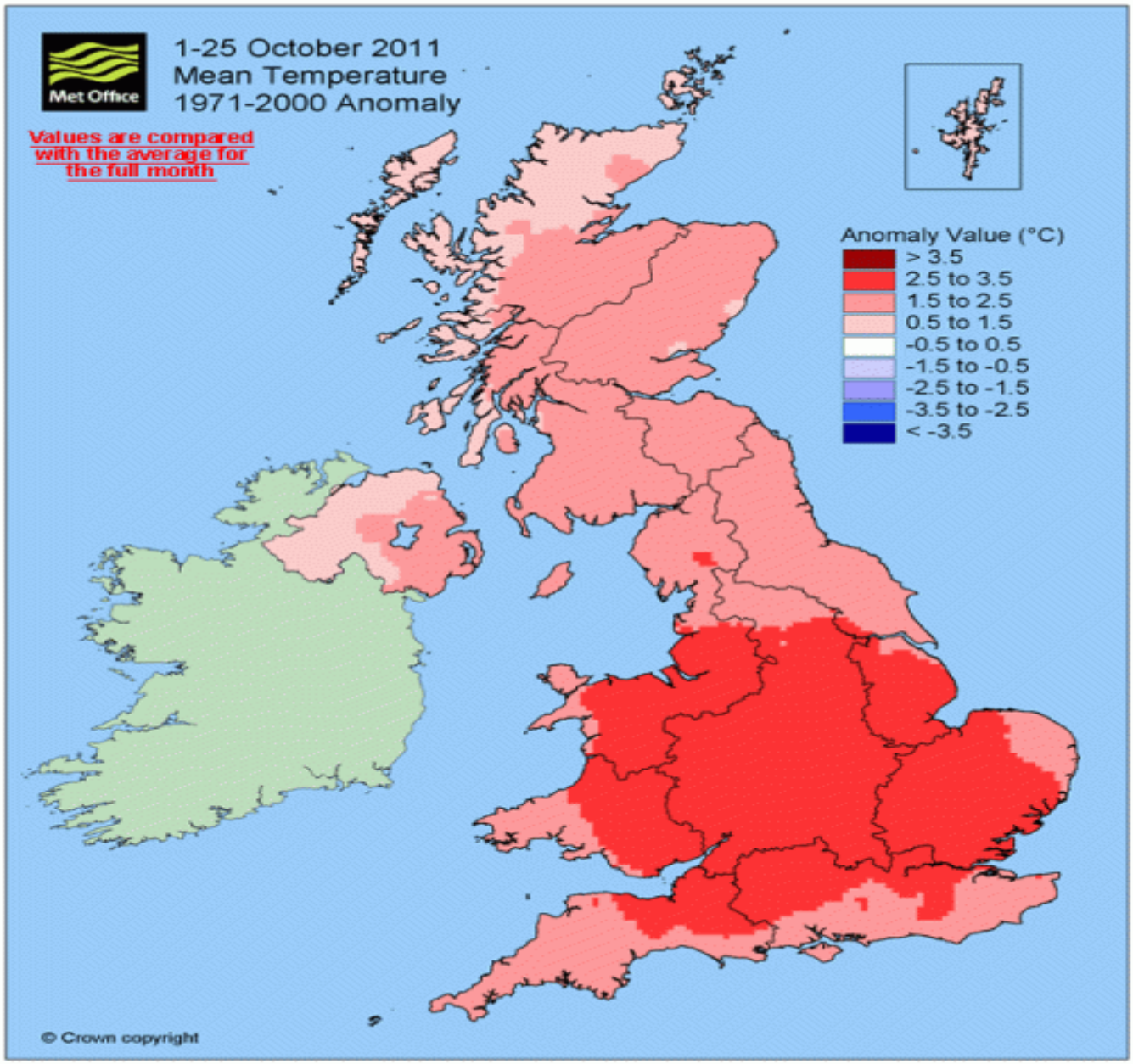
Using figures from 1-25 October, so far parts of the country have seen temperatures up to 3.1 °C warmer than the 10.2 °C long-term average for the month.

The UK average temperature for this October is currently 11.5 °C, making it the seventh warmest in records which go back to 1910. This compares to the 2001 record which saw an average temperature of 12.2 °C.

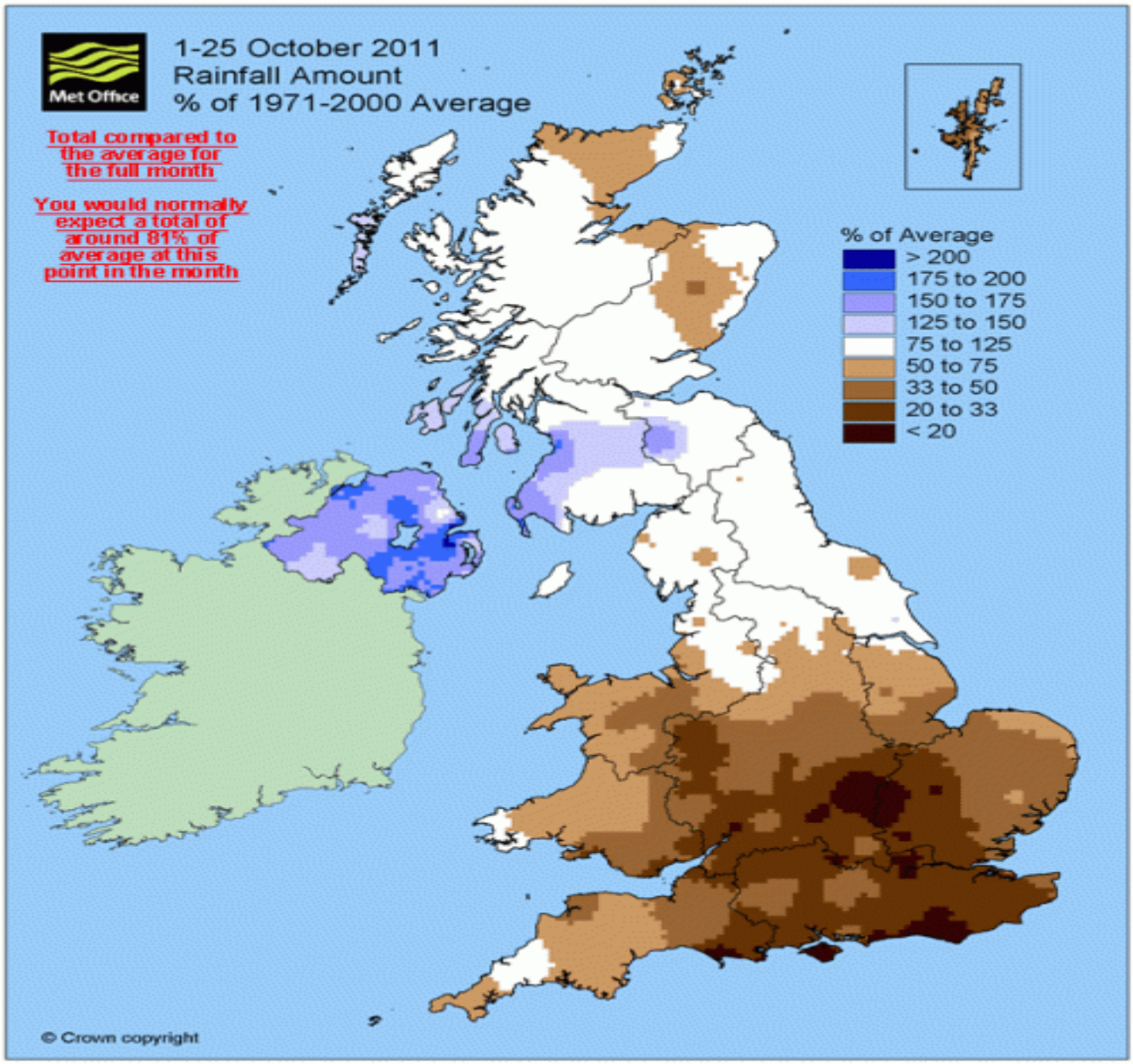
There are still five days to go before the end of the month, but temperatures are expected to continue to be relatively mild through to the start of November.

The month started with exceptionally warm temperatures for the time of year. Gravesend in Kentsaw 29.9 **°**C on 1 October, a new record for the UK and England specifically. Wales also broke its October temperature record on the same day, with Hawarden in Flintshire registering 28.2 °C.

Since then, despite a few periods of cooler weather, the majority of the month has seen mild day and night-time temperatures.



The month has also seen some marked variations in rainfall. England and Wales have, so far, had just over half of their usual monthly rainfall. Northern Ireland, however, has had 163% of its usual monthly total.


Met Office
1-25 October 2011
Rainfall Amount
% of 1971-2000 Average
Total compared to the average for the full month
You would normally expect a total of around 81% of average at this point in the month
% of Average
> 200
175 to 200
150 to 175
125 to 150
75 to 125
50 to 75
33 to 50
20 to 33
< 20
© Crown copyright

Sunshine amounts are also similarly marked across the UK. England has just already hit its monthly average total, whereas Northern Ireland currently has received only 34% of its usual amount.

Location	Average temperature for October		Average rainfall for October	
	Actual (°C)	Difference from 1971 to 2000 average (°C)	Actual (mm)	Percentage of 1971 to 2000 average
UK	11.5 °C	2.1 °C	97.6mm	83%
England	12.7 °C	2.2 °C	46.9mm	56%

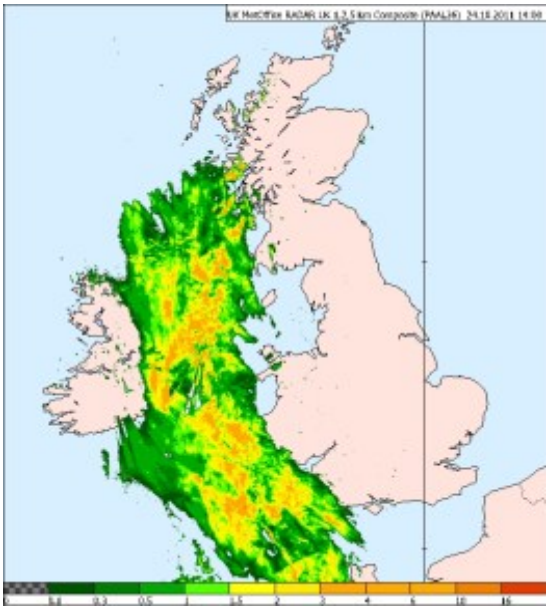
Northern Ireland	10.8 °C	1.8 °C	187.2mm	163%
Scotland	9.5 °C	1.9 °C	169.6mm	104%
Wales	12.2 °C	2.7 °C	82.5mm	54%

Date Created
October 2011

Heavy rain across parts of the UK – 24th October

Description

Yesterday we saw a slow moving weather front bring heavy and persistent rain to parts of the UK. The worst affected areas were the South West, Wales and Northern Ireland where flooding brought some disruption.



Met Office rainfall radar at 3pm, Monday 24th October 2011

Some areas, such as parts of Cornwall, saw over half a months worth of rain in one day.

The highest amount recorded in 24 hours was 68.4mm at Cardinham on Bodmin Moor, Cornwall. The long term average rainfall for Cardinham for October is 146.2mm.

Some of the rain fell in very short periods of time: In one hour around lunchtime Luxulyan, near St Austell, Cornwall, recorded 23.6mm of rain and at Milford Haven, Pembrokeshire, Wales, 17.8mm fell during the evening rush hour.

UK Rainfall 24th October 2011

24 hour totals

Location	Rainfall amount (mm)
Cardinham, Cornwall	68.4
Milford Haven, Wales	52.4
Camborne, Cornwall	49.6
Killowen, County Down	40.8
Katesbridge, County Down	36.6

The rest of the week will see a mix of sunshine and showers, with southern Britain expected to have another wet day on Thursday. For the latest weather forecast go to www.metoffice.gov.uk/weather

Related articles

- Torrential rain causes flooding across UK (bbc.co.uk)

Date Created
October 2011

Are we really having ‘topsy-turvy’ weather?

Description

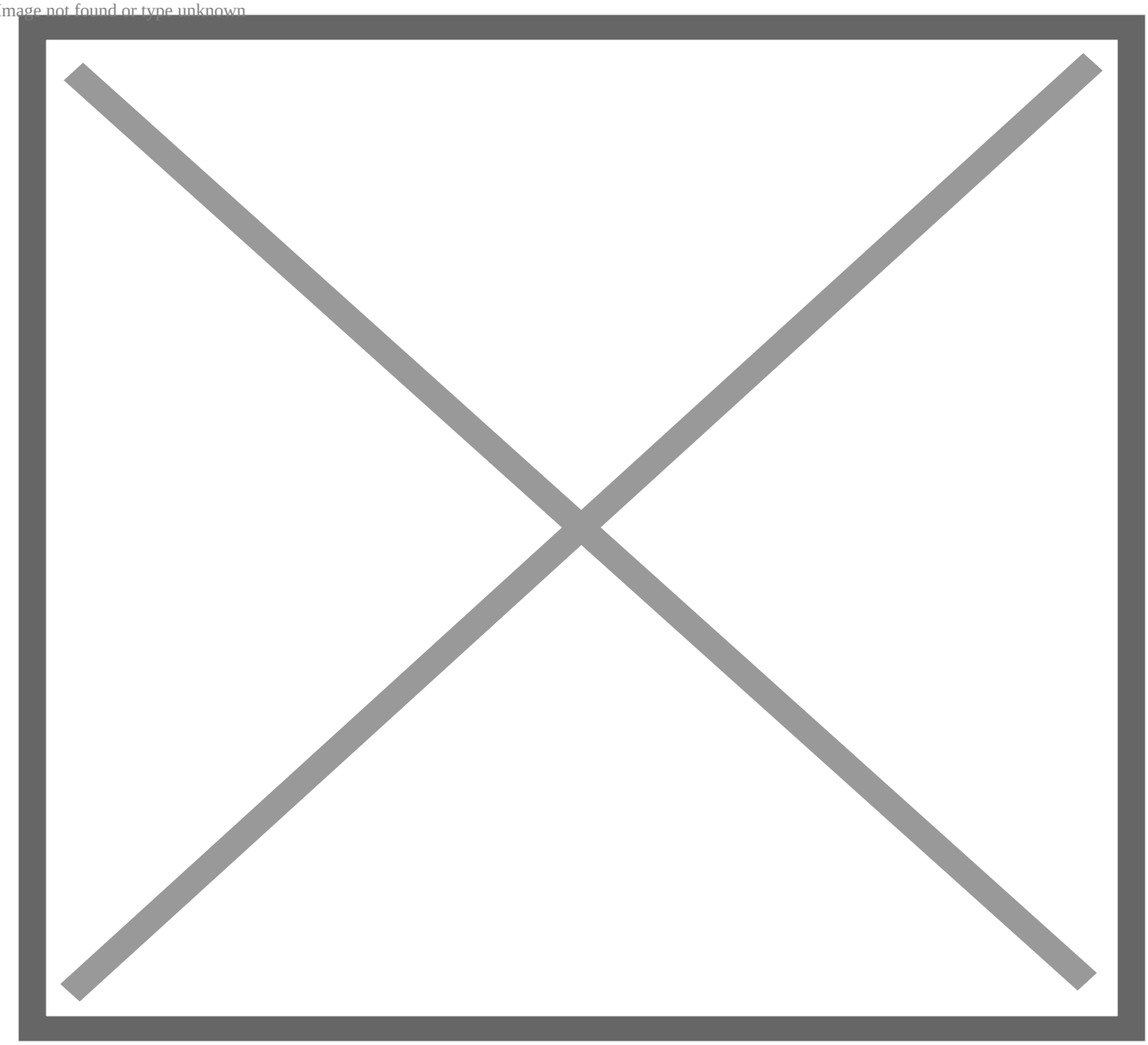
There have been many media reports on the UK’s ‘barmy’ and ‘topsy-turvy’ weather over the past few weeks, with front pages warning of an ‘arctic blast’ and ‘mini ice age’ to come. But is the weather we’ve been having really that unusual in terms of climate history, and what can we actually expect in the days to come?

Record-breaking October temperatures

- Britain basks in its hottest October day ever (Mirror)
- After the heatwave, get set for an 18c FALL in temperature within days (Daily Mail)

We saw a very warm start to October, with a new maximum temperature record for the month of October of 29.9 °C on October 1. Temperatures this high in October are very unusual – in fact temperatures over 25 °C at the start of October have only been recorded widely five times since 1959; in 1997, 1985, 1969 and 1959. The average daily maximum temperature for October is around 15 degrees lower than the levels we had at the start of the month, as can be seen from the image below.

Image not found or type unknown



Autumn weekend ‘heatwave’

- Get ready for the last of the summer sun (The Sun)
- Get those T-shirts out again, the sun’s back: Forecasters say October will be hotter than summer (Daily Mail)

The newspapers reported ‘freak warm weather’ for last weekend, and although the weekend temperatures were mild – a few degrees warmer than average – they were not out of the ordinary. Temperatures reached 18 °C as forecast by the Met Office, but during last week Monday, Tuesday, Wednesday and Thursday were all warmer than the weekend, with maximum temperatures exceeding 20 °C every day.

Snow and cold weather in October

- -20 to hit Britain (Daily Express)
- Artic blast to bring snow (Daily Express)

The weather we're seeing this week is not unusual, and is also nowhere near as severe as was reported in some media outlets last week. In line with our forecast, 1 – 3cm of snow is expected on Scottish mountains, with a dusting possible as far south as the Pennines. You can see the snow line at Ben Nevis on the Fort William webcam. But snow in October is perfectly normal, if we look at climatology we would expect, on average, to see 1 – 4 days when snow falls on high ground in Scotland and the north of England. Temperatures are also around what would normally be expected for October.

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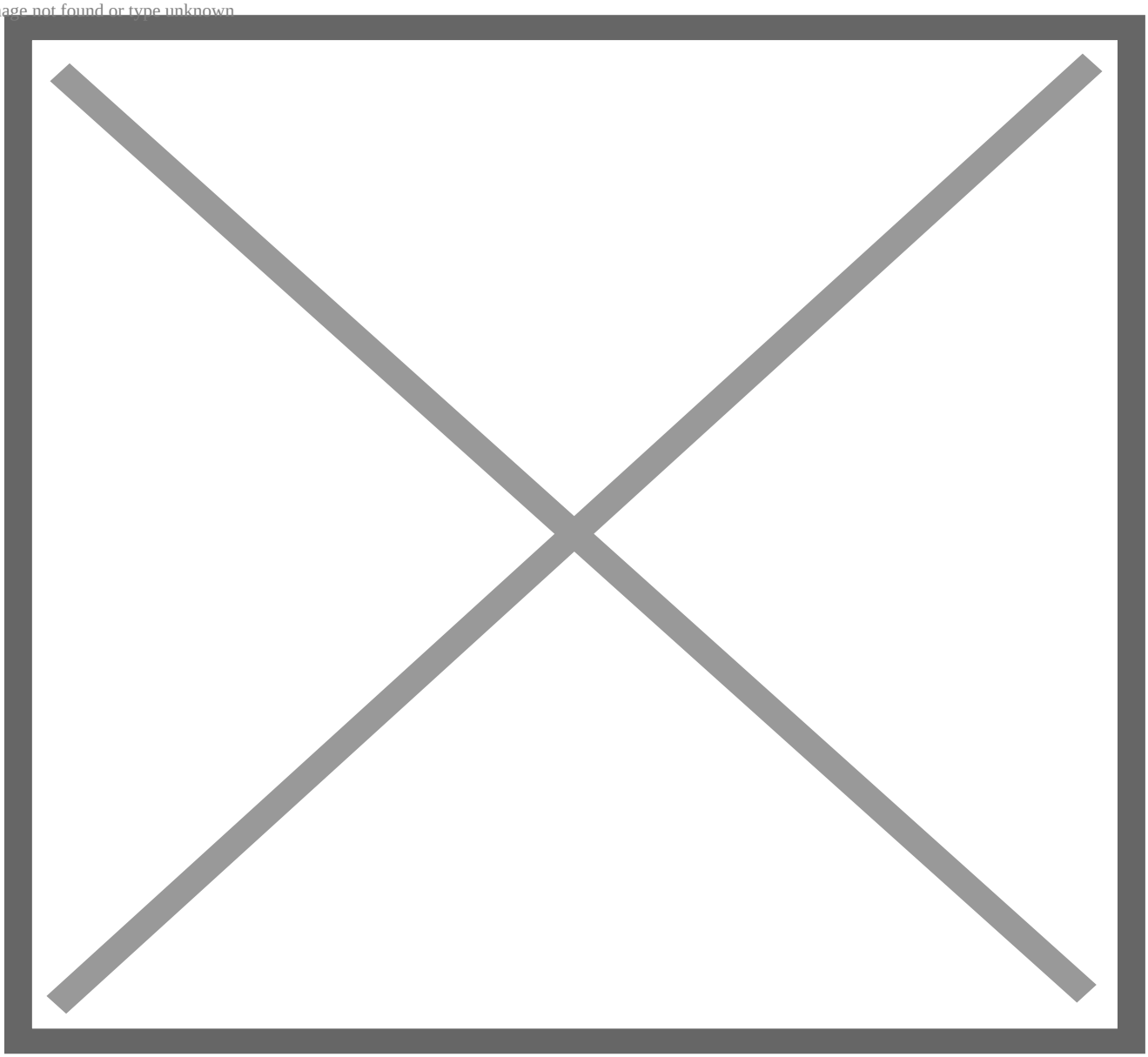

This week

Windy and showery weather is set to continue for a couple of days, with snow again likely on higher ground in Scotland, and possibly as far south as the north Pennines. It will be chilly – compared to the recent mild weather – with overnight frosts likely.

Later in the week and into the weekend unsettled weather is expected to continue across northern parts of the UK, with wind and rain returning from the Atlantic. While in the south it becomes mainly dry once again. The risk of frost receeds with temperatures near, or slightly above, normal.

Related articles

- Met Office in the Media: There is no need for alarmism (metofficenews.wordpress.com)

Date Created
October 2011

Met Office in the Media: 14 October 2011

Description

There has been some stories in the media today about some fine weather expected over the coming weekend. Some of these stories have suggested that we are going to see a heatwave or even that October will be warmer than summer. This is simply not the case

- T-shirt time! Freak heatwave to hit Britain this weekend – as forecasters say this October will be hotter than summer (Daily Mail)
- Get ready for the last of the summer sun (The Sun)

Most of England and Wales will have a sunny day on Saturday although northwestern areas will be cloudier with rain across parts of Northern Ireland and Scotland. Temperatures will be between 16 to 18 Celsius across the UK, and although rather mild, this is far from a heatwave. We have already seen temperatures in excess of 20 deg C every day this week and therefore the weekend looks a little cooler than previous days.

Other reports have also suggested that forecasters are saying October will be warmer than the summer. Again, this is just not the case. It would be correct to say that we have seen a very mild start to October with the warmest October day ever recorded on 1st October when Gravesend reached 29.9 C. However this does not compare with the 33.1 Celsius that was recorded on 27 June 2011

We are not even half way through the month and the Met Office have not complied any national weather statistics for the month yet. It is just not possible to compare one month with the three months of Summer, especially when the month is not complete.

Elsewhere, the Economist has reported on the ground-breaking science from the Met Office that identifies a link between solar UV output and cold winters in parts of Europe and North America.

Date Created
October 2011

150th photo competition winners

Description

Thank you to everyone who took part in our 150th photo competition. August this year marked 150 years since the first weather forecast was published in the Times newspaper. As part of the celebrations we held a photo competition asking people to capture their defining weather moments of 2011, highlighting how the weather played a part in their life and what its impact had been.

Congratulations to Trishia Bloor of Bideford, Devon for submitting the winning entry. The photo was taken by her husband at Hartland Quay in North Devon.

Trishia explains, “We have wild and wonderful weather here as it juts out into the Atlantic. As you can perhaps tell the wind was so strong I had to hold onto the railings to keep my feet. I have two coats, a bodywarmer and the charming hat is to keep my ears from the cold.”

See the winning photo and all the runner ups are in the slide show below.

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For more weather photos, visit the Met Office Flickr group.

Date Created
October 2011

Met Office in the Media: There is no need for alarmism

Description

Over the past few weeks some parts of the media have carried some colourful headlines about what's in store for this year's winter. Reports of '-20 °C within weeks', 'a winter fuel crisis on the way' and 'widespread snow by the end of October', have all whipped up a frenzy of expectation for an 'Arctic winter'.

In response Met Office Chief Executive, John Hirst has written in The Times today calling for a sense of reason in light of these headlines that can confuse and even scare vulnerable people in our society.

You can read the opinion piece here:

Winter will be cold – but don't panic just yet

It's absurd to make alarmist forecasts of a whiteout. That's not how our weather works

Last year Britain had the coldest start to winter in 100 years and the repeated snowfalls over 40 days before Christmas cost the economy up to £130 million a day.

So it is understandable that there is intense interest in this year's winter. But the colourful recent headlines predicting "-20C within weeks", "a winter fuel crisis" and "widespread snow by the end of October" bear no relation to the kinds of weather that forecasters at the Met Office are currently expecting — there is no need for alarm.

These stories do reflect our national obsession with the weather but they can also confuse and even scare vulnerable people. The Met Office's job is to provide accurate and reliable information and at this stage we see no scientific evidence to support these premature predictions. In fact the scientific capability does not exist to allow such extremes to be identified on a long-range timescale.

We can say with reasonable certainty that today will be largely overcast, with rain for many places, but as we move towards the weekend it will become mostly dry with skies brightening in the south and east. Over the weekend rain will move southeastwards. We can also say that the current 30 day outlook suggests that next week will be rather cold at times with some snow over high ground in the north of the UK, and frost in some sheltered locations too. What no forecaster can say is whether we'll see a week of -20C temperatures in Manchester in the second week of December.

This does not mean that harsh winter conditions are not possible, just that they cannot be identified at the moment.

As winter approaches, local government and businesses are preparing for the worst that the British weather can throw at us. But the fact that local authorities are stocking up on grit is no cause for alarm. This is what contingency planners do. In fact, their preparations are encouraging because they mean the country should be in a good position to respond to our short-range forecasts of severe weather.

Last year there was some confusion between our longer-range outlook which provided good advice over the whole winter — as January and February were relatively mild — and our shorter-range forecasts that correctly identified the prolonged cold and snowy weather early in the winter. In fact, our forecasts of where and when it would snow were second to none. Although it is not possible to prevent disruption, our detailed forecasts allowed agencies to put their resources in the right place at the right time to ensure that it was kept to a minimum.

You may ask why we can provide long-term forecasts for things such as the North Atlantic tropical storm season, but doing the same for the UK is still so difficult. It is because the UK is a small island sandwiched between an ocean and a continent, and it lies on a latitude where warm tropical and cold polar air masses fight for supremacy. The UK is also about as far away as it is possible to be from key drivers of long-range predictability, such as La Niña. It’s perhaps no coincidence that the Met Office and the Japanese Meteorological Agency are consistently ranked the top two operational forecasters in the world, given that both ply their trade on island nations with notoriously changeable weather.

There are many contributing influences to long-term weather patterns, such as Atlantic Ocean temperatures, pressure patterns and the extent of Arctic sea ice. Research published by us only this week casts new light on how solar ultraviolet output affects Europe’s winter weather. The long-term challenge is to understand how they might be affected by a changing climate.

In recent years we have seen great scientific and technological advances that allow us to warn of impending severe weather with ever greater lead times and with ever greater detail. Rest assured that this year the Met Office will continue to offer that service, warning of any severe weather in plenty of time to get out the gritters — and the jumpers — when it matters.

Date Created
October 2011

Met Office in the Media: 11 October 2011

Description

There has been continued interest in the research from the Met Office with Imperial College London and the University of Oxford, that shows that low UV output from the sun can contribute to an increased risk of cold winters over parts of the northern hemisphere, such as recently seen in the UK. Michael Hanlon of the Daily Mail posted an fascinating blog article on Mini ice-age or global warming: why can't they make their minds up?. Elsewhere Jonathan Leake from the Sunday Times has clarified his article on this science in which he said:

> Thanks to those who have commented on this article. However, there appears to be a common misunderstanding. This article is not about anthropogenic climate change. The phenomena mentioned in this article are natural and separate from climate change. They operate in parallel to climate change, in parallel to each other but, of course, each on very different time scales.
> La Nina, for example, is really about weather. It's part of a relatively short term natural cycle operating over periods of a few years.
> It's just one of many factors which together mean that weather is constantly showing a high level of variability. In other words, getting a cold winter or two does not tell us anything about climate change. It just tells us that weather changes a lot – which we already know.
> Similarly, the research in Nature Geoscience about the changes in solar radiation, is also nothing to do with climate change. It's an entirely separate effect happening in parallel. Scientists think its part of a 3-400 year cycle of changes in UV radiation. There's a good article here and the original is here.
> It's interesting to wonder if it will mitigate or amplify the effects of greenhouse gas emissions but I suspect no-one really knows yet.
> The key point is that short term changes in the weather and long term changes in the climate are both driven by a complex mix of variables. Working out the most likely future trends is hard and takes long-term dedicated science. Reducing it all to an argument to undermine climate change misses the real point which is that we should be trying to use the best science to assess just how much of a problem all these effects really present to an increasingly crowded and interconnected world.
> The science suggesting that the Earth faces significant warming remains very strong. If you disagree then you need good science to back your case. These other phenomena (La Nina, UV radiation etc) are simply not relevant.
> Jonathan Leake

Related articles

- Met Office in the Media: Solar variability helps explain past cold winters (metofficenews.wordpress.com)
- Solar lows caused extreme European winters (newscientist.com)

Date Created
October 2011

Met Office in the Media: 10 October 2011

Description

There has been widespread coverage across the media today on research from the Met Office with Imperial College London and the University of Oxford, that shows that low UV output from the sun can contribute to an increased risk of cold winters over parts of the northern hemisphere, such as recently seen in the UK.

Richard Black at the BBC reported accurately on how 'Ultraviolet shone on cold winter conundrum'. Likewise Steve Connor at the Independent reported on how 'Solar activity may be to blame for unusually cold winters'. On BBC Radio Four 'Today' also covered the research.

Elsewhere there was some misleading reports that suggested this research meant we may see a 'mini ice age'. There is nothing in this research that would indicate such as assessment and a full article on the research can be found on the Research pages of the Met Office website.

Over the weekend the Sunday Times reported on the countries plans to prepare for winter. In any winter we can see spells of severe weather and the Met Office is providing a range of services across many sectors to support winter preparedness. The Sunday Times reported on some of the support provided by the Met Office including embedding weather advisors into the National Traffic Control Centre on behalf of the Highways Agency and a range of advice and services we have provided to BAA. We also provide a range of services for the UK's road, rail, airport, airline industries as well as the contingency community that provide accurate 1 to 5 day forecasts on which action is taken to minimise the impacts of severe weather.

Elsewhere there remains unprecedented levels of speculation on the prospects of a cold winter with numerous stories about the possibility of cold weather. In the short term our weather remains relatively mild this week, especially in the south, before turning a little cooler from the north with more typical autumnal weather. A full forecast for the UK for the next 30 days can be found on the Met Office website.

Date Created
October 2011

Met Office in the Media: Solar variability helps explain past cold winters

Description

There has been widespread coverage across the media today on research from the Met Office that has shed new light on a link between decadal solar variability and winter climate in the UK, northern Europe and parts of America.

The study, carried out by the Met Office with Imperial College London and the University of Oxford, shows that low UV output from the sun can contribute to cold winters over parts of the northern hemisphere, such as recently seen in the UK. Years of higher UV have the opposite effect.

Some media coverage has suggested that this new research indicates that we are heading toward another cold winter this year or even a mini ice age. This is not the case as this research provides no information regarding an outlook for the coming winter months. In fact, levels of UV are now rising as part of the 11-year solar cycle.

Also, this research says nothing about entering a new ice age. Even if we did head in to low UV activity it is thought that this would not offset the temperature increases we have observed due to climate change.

Adam Scaife, one of the scientists involved in the research, said that new data from sensitive satellite equipment shows UV variability over the 11-year solar cycle may be much larger than previously thought and has been key to the research.

By using this information in the Met Office's climate model, researchers were able to reproduce the effects of solar variability apparent in observed climate records.

In years of low UV activity unusually cold air forms over the tropics in the stratosphere, about 50km up. This is balanced by more easterly flow of air over the mid latitudes – a pattern which then 'burrows' its way down to the surface, bringing easterly winds and cold winters to northern Europe.

Low UV output from the sun leads to easterly winds and cold conditions in Europe and the US

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Low UV output from the sun leads to easterly winds and cold conditions in Europe and the US

When solar UV output is higher than usual, the opposite occurs and there are strong westerlies which bring warm air and hence milder winters to Europe.

The Sun has recently been in a quiet phase of its regular 11-year cycle, which coincided with three years in which the UK, along with other places in northern Europe and parts of the US, experienced cold conditions unusual in the recent record. But unusually warm weather was felt both further south, around the Mediterranean Sea, and further north in Canada and Greenland.

“The key point is that this effect is a change in the circulation, moving air from one place to another, which is why some places get cold and others get warm. It’s a jigsaw puzzle, and when you average it up over the globe, there is no effect on global temperatures,” Adam Scaife told BBC News.

While UV levels won’t tell us what the day-to-day weather will do, they could be important in helping us develop improved forecasts for winter conditions for months or even a few years ahead and this is now being investigated.

You can read more about this research on the Met Office Research web pages

Related articles

- Ultraviolet link to cold winters (bbc.co.uk)
- Solar activity may be to blame for unusually cold winters (independent.co.uk)

Date Created
October 2011

New Met Office beta website

Description

Our new beta website has now been live for a month. We regularly receive feedback on our website and we have tried to incorporate this in our new design and content. For example, popular content from Invent – such as the rainfall radar map and the meteogram – has also been moved across to the new site. But we still need your feedback to help us shape the rest of the site and build upon the changes we've made so far.

The beta site will be available alongside our current website until next spring. This will allow time for us respond to your feedback and make any final changes. You can send your comments via our feedback form.

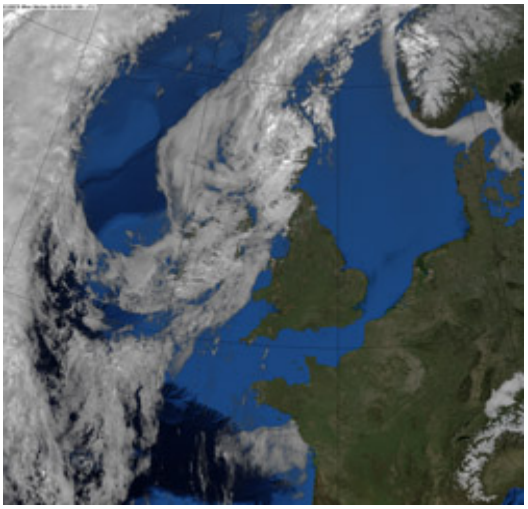
The video above explains some of the main changes and the reasons behind them and there's a full explanation of all the changes on our website. Some of the improvements include:

Number of forecast locations increased to 5000
Your local weather forecast on the homepage
See the probability of precipitation
Pan and zoom on maps
Choose what you want to see on the homepage

Date Created
October 2011

Autumn ‘heat wave’ statistics

Description


Satellite image 29 September

Over the past week we’ve had a period of settled weather bringing clear skies and high temperatures to many areas of the UK. The temperature peaked at 29.9°C at Gravesend in Kenton Saturday 1 October. This marked a new record for October, and a number of other new maximum temperature records were provisionally set as detailed below.

	Previous maximum temperature	New maximum temperature
October (UK)	29.4°C March, Cambridgeshire 1985	29.9°C Gravesend, Kent 2011
October (Wales)	26.4°C Ruthin, Denbighshire 1985	28.2°C Harwarden, Flintshire 2011
29 September	27.8 °C York 1895	28.8°C Kew Gardens 2011
30 September	27.8°C Maidenhead, Berkshire 1908	29.2°C Sutton Bonnington, Notts, and Cambridge 2011
1 October	29.4°C March, Cambridgeshire 1985	29.9°C Gravesend, Kent 2011

2 October	28.1 °C Whitby, North Yorkshire 1908	29.3°C Coningsby 2011

For more information about how the Met Office forecasted this spell of warm weather, view our case study.

Related articles

- New record temperature for October in the UK (metofficenews.wordpress.com)
- What is an 'Indian summer'? (metofficenews.wordpress.com)

Date Created
October 2011

New record temperature for October in the UK

Description

The UK has a new record temperature for the month of October.

Provisionally, the highest temperature of the day was 29.9 °C, recorded at Gravesend in Kent.

This beats the previous record of 29.4 °C recorded at March in Cambridgeshire, which has stood since 1 October 1985.

Wales also has a new national record, 28.2 °C was recorded at Hawarden in Flintshire. The previous record was 26.4 °C recorded at Ruthin, Denbighshire, again on 1 October 1985.

These new records come at the end of an increasingly hot week across many parts of the UK and we may well see record breaking temperatures in some areas again on Sunday.

Date Created
October 2011